


Section 3: Meiosis

In **section 3**  of your second semester map, you will draw or write everything that you know about Meiosis. You should at least answer all of the following questions:

1. **Draw** the process of Meiosis. **Identify** each step.
2. **Identify** where each of the following occur and **define** and **explain** how each of the following effects genetics.
 - a. Mendel's Law of Dominance
 - b. Mendel's Law of Segregation
 - c. Mendel's Law of Independent assortment
 - d. Crossing Over
 - e. Non-disjunction
3. **Answer** the following questions in section 3.
 - a. **What** is a gamete?
 - b. **What** is the male gamete that is produced during meiosis? How many are functional?
 - c. **What** is the female gamete that is produced during meiosis? How many are functional?
 - d. **What** are haploid cells?
 - e. **What** are diploid cells?
 - f. **How** many chromosomes does a normal human body cell have?
 - g. **How** many chromosomes are in each cell that is produced during **mitosis**?
 - h. **How** many chromosomes are in each cell that is produced during **meiosis**?
 - i. **How** many cells are produced in **mitosis**?
 - j. **How** many cells are produced in **meiosis**?
 - k. **How** are the cells in meiosis similar and **how** are they different?
4. Reproduction
 - a. **How** many sperm fertilize an egg? **What** process takes place immediately after fertilization to multiply the number of cells?
5. **How** many different types of twins are there? And **how** does each happen?
What kind of role does Meiosis and Mitosis play in the production of twins?
6. In the small section between, section 2 and 3 **write** a brief explanation on **how** Meiosis relates to DNA and protein synthesis? 